

I CLAIM AS MY INVENTION:

1. A flow meter arrangement comprising:
a venturi-type flow meter having a tubular flow channel for conveying a gas flow to be measured, said venturi-type flow meter emitting an output;
a hot wire flow meter having a sensing element disposed in said flow channel of said venturi-type flow meter, said hot wire flow meter generating an output; and
a measurement system connected to said venturi-type flow meter and to said hot wire flow meter to receive the respective outputs therefrom, said measurement system determining a gas flow rate in said flow channel from said output.
2. A flow meter arrangement as claimed in claim 1 wherein said measurement system comprises a comparator for comparing at least one of said outputs to a threshold value to obtain a comparison result and which, dependent on said comparison result switchably selects one of said venturi-type flow meter and said hot wire flow meter to provide an output, as a currently selected output, and wherein said measurement system determines said gas flow rate only from said currently selected output.
3. A flow meter arrangement as claimed in claim 2 wherein each of said venturi-type flow meter and said hot wire flow meter has a sensitivity, and wherein said comparator compares said output from at least one of said venturi-type flow meter and said hot wire flow meter to a threshold value representing a sensitivity at which the respective sensitivities of said venturi-type flow meter and said hot wire flow meter are substantially equal.

4. A flow meter arrangement as claimed in claim 2 wherein said threshold value is a first threshold value, and wherein said measurement system comprises a memory containing a second threshold value associated with the output of the venturi-type flow meter and a third threshold value associated with the output of the hot wire flow meter, said second and third threshold values being respectively indicative of different gas flow rates, and wherein said comparator has access to said memory and compares said currently selected output with the respective second or third threshold from said memory associated with said currently selected output.

5. A flow meter arrangement as claimed in claim 1 wherein said measurement system comprises a difference former for forming a difference value between the output from the venturi-type flow meter and the output from the hot wire flow meter, and a comparator for determining if said difference value exceeds a predetermined threshold.